

Claims

- [c1] An automotive seat assembly for use in an automobile comprising:
- an automotive seat element comprising:
 - a seatback element comprising a seatback forward face, a seatback top face, and a seatback rearward face, said seatback element rotatable between a seatback use position and a seatback folded position; and
 - a seat base element comprising a seat base top face;
 - a headrest mounting structure positioned within said seatback element;
 - a pivot structure having a lower pivot end and an upper pivot end, said lower pivot end rotatably mounted to said headrest mounting structure, said pivot structure rotatable about said lower pivot end between a pivot structure storage position and a pivot structure use position, said pivot structure extending vertically upward from said seatback top face when in said pivot structure use position, said upper pivot end rotating forward about said lower pivot end to reach said pivot structure storage position;
 - a headrest inner structure rotatably engaged to said upper pivot end, said headrest inner structure extending on

a downward angle from said upper pivot end;
a headrest outer structure covering said headrest inner structure, said headrest outer structure comprising a head engagement surface, said headrest inner structure rotatable away from said seatback element such that as said pivot structure rotates into said pivot structure storage position, said headrest outer structure slides down along said seatback forward face.

[c2] An automotive seat assembly as described in claim 1 wherein said head engagement surface remains parallel to said seatback forward face as said pivot structure rotates into said pivot structure storage position.

[c3] An automotive seat assembly as described in claim 1, wherein said headrest inner structure comprises:
a u-shaped support ending extending downward from said upper pivot end.

[c4] An automotive seat assembly as described in claim 1, wherein said upper pivot end biases said head engagement surface towards said seatback forward structure.

[c5] An automotive seat assembly as described in claim 1, wherein:
said pivot structure is biased towards said pivot structure storage position;

said pivot structure lockable using a lower pivot locking element into said pivot structure use position; and
said lower pivot locking element disengaging said pivot structure in response to said seatback element moving into said seatback folded position.

- [c6] An automotive seat assembly as described in claim 1, further comprising:
an indentation formed in said seatback forward face adjacent said seatback top face, said headrest outer structure movable within said indentation as said pivot structure moves between said pivot structure use position and said pivot structure storage position.
- [c7] An automotive seat assembly as described in claim 1, wherein said headrest outer structure is completely located between said seatback top face and said seat base element when said seatback element is in said seatback folded position.
- [c8] An automotive seat assembly as described in claim 6, wherein said headrest outer structure includes a headrest rear protrusion, said headrest rear protrusion engaging a lower indentation face of said indentation when said pivot structure is in said pivot structure storage position.

[c9] An automotive seat assembly as described in claim 1, wherein said pivot structure comprises a pair of inwardly arched pivot arms.

[c10] An automotive seat assembly as described in claim 1, wherein said head engagement surface protrudes from said seatback forward face when in said pivot structure storage position, said protruding prompting manual return to said pivot structure use position when said seatback element is returned to said seatback use position.

[c11] An automotive seat assembly for use in an automobile comprising:
an automotive seat element comprising:
a seatback element comprising a seatback forward face, a seatback top face, and a seatback rearward face, said seatback element rotatable between a seatback use position and a seatback folded position; and
a seat base element comprising a seat base top face;
a headrest mounting structure positioned within said seatback element;
a pivot structure having a lower pivot end and an upper pivot end, said lower pivot end rotatably mounted to said headrest mounting structure, said pivot structure rotatable about said lower pivot end between a pivot structure storage position and a pivot structure use position, said pivot structure extending vertically upward from

said seatback top face when in said pivot structure use position, said upper pivot end rotating forward about said lower pivot end to reach said pivot structure storage position;

a headrest inner structure rotatably engaged to said upper pivot end, said headrest inner structure rotatable between an inner structure storage position and an inner structure use position, said headrest inner structure extending on a downward angle from said upper pivot end when in said inner structure use position, said headrest inner structure extending parallel with said pivot structure when in said inner structure storage position;

a headrest outer structure covering said headrest inner structure, said headrest outer structure comprising a head engagement surface, said headrest engagement surface perpendicular to said pivot structure when in said inner structure storage position.

[c12] An automotive seat assembly as described in claim 11, wherein said headrest inner structure comprises an L-shaped structure extending outwards from said seatback forward surface.

[c13] An automotive seat assembly as described in claim 11, wherein:
said pivot structure is biased towards said pivot structure storage position;

said pivot structure lockable using a lower pivot locking element into said pivot structure use position;
said headrest inner structure biased towards said inner structure storage position;
said headrest inner structure lockable using an upper pivot locking element into said inner structure use position; and
said lower pivot locking element and said upper pivot locking element disengaging in response to said seatback element moving into said seatback folded position.

[c14] An automotive seat assembly as described in claim 11, wherein said headrest outer structure is completely located between said seatback top face and said seat base element when said seatback element is in said seatback folded position.

[c15] An automotive seat assembly as described in claim 11, further comprising:
an indentation formed in said seatback forward face adjacent said seatback top face, said headrest outer structure movable within said indentation as said pivot structure moves between said pivot structure use position and said pivot structure storage position.

[c16] An automotive seat assembly as described in claim 11, wherein said head engagement surface protrudes from

said seatback forward face when in said pivot structure storage position, said protruding prompting manual return to said pivot structure use position when said seatback element is returned to said seatback use position.

[c17] An automotive seat assembly as described in claim 11, wherein said headrest engagement inner surface is parallel with said seatback forward face when in said pivot structure storage position.

[c18] A method of storing an automotive seat assembly comprising:
folding a seatback element from a seatback use position to a seatback folded position;
releasing a lower pivot locking element in response to said seatback element moving into said seatback folded position;
pivoting a pivot structure about said lower pivot end from a pivot structure use position to a pivot structure storage position in response to releasing said lower pivot locking element, said pivot structure biased towards said pivot structure storage position such that said pivot structure rotates forward about said lower pivot end upon release of said lower pivot locking element;
sliding a headrest outer structure downward along a seatback forward face in response to said pivot structure moving into said pivot structure storage position, said

headrest outer structure positioned around a headrest inner structure rotatably engaged to an upper pivot end of said pivot structure, said headrest inner structure extending on a downward angle from said upper pivot end.

[c19] A method as described in claim 18, further comprising: manually returning said pivot structure to said pivot structure use position.

[c20] A method as described in claim 18, wherein said headrest outer structure is completely located between a seatback top face and a seat base element when said seatback element is in said seatback folded position.